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human CAP-1

60  
MLSHNTMMKQRKQQATAIMKEVHGNDVDGMDLGKKVSIIPRDIIMLEELSHLSNRGARLFKM  
120  
RQRRSDKYTFENFQYQSRAQINHSIAMQNGKVDGSNLEGGSQQAPLTPPNTPDPRSPNP  
180  
DNIAPGYSGPLKEIPPEKENTTAVPKYYQSPWEQAISNDPELLEALYPKLFKPEGKAEPL  
240  
DYRSFNRVATPFGGFEEKASRMVKFKVPDFELLLLTDPFRMSFVNPLSGRRSFNRTPKGWI  
SENIPVITTEPTDDTTVPESEDL

FIG. 1A

mouse CAP-1

60  
MLSHSAMVKQRKQQASAITKEIHGHDVDGMDLGKKVSIIPRDIIMIEELSHFSNRGARLFKM  
120  
RQRRSDKYTFENFQYESRAQINHNIAMQNGRVDGSNLEGGSQQGPSTPPNTPDPRSPNP  
180  
ENIAPGYSGPLKEIPPERFNTTAVPKYYRSPWEQAIGSDPELLEALYPKLFKPEGKAEELR  
240  
DYRSFNRVATPFGGFEEKASKMVKFKVPDFELLLLTDPFRFLAFANPLSGRRCFNRAPKGWV  
SENIPVVITTEPTEDATVPESDDL

FIG. 1B

human CAP-2

60  
MPLSGTPAPNKKRKSSKLIMELTGGGQESSGLNKGKISVPRDVMLEELSLLTNRGSKMF  
120  
KLRQMRVEKFIYENHPDVFSDDSSMDHFQKFLPTVGGQLGTAGQGFSYKSNRGGSSQAGG  
180  
SGSAGQYGSDQQHHLGSGSGAGGTGGPAGQAGRGGAAGTAGVGETGSGDQAGGEGKHITV  
240  
FKTYISPWERAMGVDPQQKMELGIDLLAYGAKAELPKYKSFNRTAMPYGGYEKASKRMTF  
QMPKFDLGPLLSEPLVLYNQNLNRPFSFNRTPIPWSSGEPVDYNVDIGIPLDGTETEL

FIG. 1C

mouse CAP-2

60  
MPLSGTPAPNKKRKSSKLIMELTGGGRESSGLNKGKISVPRDVMLEELSLLTNRGSKMF  
120  
KLRQMRVEKFIYENHPDVFSDDSSMDHFQKFLPTVGGQLETAGQCFSYKGSSGGQAGSSG  
180  
SAGQYGSDRHHQGGSGFGAGGGGPGGQAGGGGAPGTVGLGEPGSDQAGGDGKHVTVFKT  
240  
YISPWDRAMGVDPQQKVELGIDLLAYGAKAELPKYKSFNRTAMPYGGYEKASKRMTFQMP  
KFDLGPLLSEPLVLYNQNLNRPFSFNRTPIPWSSGHEVDYNVDVGIPLDGTETEL

FIG. 1D



10	20	30	40	50	60	70	80	90	100
GTCCAGGATCTCAAGGATAAAAAACCATCAGGCCCAAGTGGCCATATGATCTCCGACAGATCTCTCCFCCACAAATCGGATCTCCTCCGCTGCAAAAAG									
CAGGGTCCAAAGTCTCTATTTTGTGATCTCCGGTTCACGGTTCAGGTATGATCTAGGTAGAGGTCCTCAGAGGAGGCTGTTTGACCCCTAAGTAGGGGGCAGCTTTTTC									
110	120	130	140	150	160	170	180	190	200
CACAACTCTAACAGCAAGGGAACAAAAAACCATGCTATCACATAATCATATGATGAAGCAGAGAGAAACCAAGCAACGCCATCATGAAGGAAGTCCAT									
GTGTAGATATGTCGTCTTCCTTGTTTTTTGGTAGCATAGTGTATATGATGATACTACTCTGCTCTCTTTTGTGCTGTCTGTCTCGGTAGTACTCTCTTCAGTGA									
210	220	230	240	250	260	270	280	290	300
GGAAATGATGTGTAGTGGCATGGACCTGGGCCAAAAAGGTCAGCATCCCCAGAGACATCATGTTGGAAGAAATATCCCATCTCAGTAACCGCTGGTGCCGACG									
CCTTTACTCAAACTACCGTACCTGGACCGTTTTTCAGTCTGATGGGCTCTGTAGTACAACCTCTTAAATAGGGTAGAGTCATTTGGCAGACCGGTCCG									
310	320	330	340	350	360	370	380	390	400
TATTTAAGATCGCTCAAAAGAAATCTGCACAAATACACATTTGAAAAATTTCCAGTATCAATCTAGAGACACAAATAAATCAGATGTTGCTATGCAAGATTC									
ATAAACTCTACGCAGTTCCTCTAGACTGTTTATGTGTAAACTTTTAAAGGTCATAGTTAGATCTCGTGTTTATTTAGTGTCAACGATACCGTCTTACG									
410	420	430	440	450	460	470	480	490	500
GAAAGTGAATGGAAGTAACTTGAAGAGTGGTTCGCACCAAGGCCCTTGACTCTCCCAACACCCAGATCTCACGAAGCCCTCCAAATCTCAGACAACTAT									
CTTTCACTACCTTTCATTGAACTCTTCACCAAGCGCTGTTCGGGGGAACCTAGGAGGGGTGTGGGGTCTAGGTGCTTCGGGAGGTTTAGGTCTGTGTGTA									
510	520	530	540	550	560	570	580	590	600
GCTCCAGGATATCTCGACACTCGAGGAAATTTCTCTCGAAAAATCAACACCACAGCTGCTCCCTAAGTACTATCAATCTCCCTGGGAGCAAGCCATT									
CGAGGTCTATAAGACTCGGTGACTTCCTTTAAGGAGGACTTTTAAAGTGTGGGTGTCACAGGGGATTCATGATGTAGAGGGACCTGCTTCGGTAAAT									
610	620	630	640	650	660	670	680	690	700
GCAATCATCGCGAGCTTTTAGAGGCTTTATATCTTAACTTTTCAAGCTCGAAGGAAAGCAGAACTGCTGATTACAGAGCTTTAATACGGGGTTCGCAC									
CGTACTAGGGCTCGAAAAATCTCGAAATATAGGATTTGAAAAGTTCGGAATTCCTTTCGCTCTTACGGGACTAATGTCTCGTGAATTTGCTTCCCAAGCTGT									
710	720	730	740	750	760	770	780	790	800
ACCAATTTGGAGGTTTGA AAAAGCATCAAGAAATGGTTAAATTTAAAGTTCAGATTTTGAAGTACTATATGCTCAACAGATCCCGAGGTTTATGTCTCTTGTCT									
TGGTAAACTCCAAAACTTTTTCGTAGTCTTACCAATTTAAATTTCAAGGTCATAAATCTGATGATAACGATTGTCTAGGGTCCAAATACAGAAACAG									
810	820	830	840	850	860	870	880	890	900
AATCCCTCTTCTGGCAGACGGCTCTTAAATAGGACTCTCAAGGGATGGATATCTCAGAAATATTCCTATAGTGATAACAAACCGAACTACAGATGATACCA									
TTAGGGGAAAAGACCGTCTCGCAGGAAATATCTCTGAGGATTCCTACTATAGACTCTTATAAGGATATCACTATTGTGCGCTTGGATGTCTACTATGGT									
910	920	930	940	950	960	970	980	990	1000
CTGTACGAGATCAGAAAGCCTATGAAAAGAAAGTGTATGTGCCACATAAAACTCTGAATATAAAAGTGTGCTGTCTTACTATTTTAACTACTGCCAAAG									
GACATGGCTTAGTCTCTGGATCTTTCTCTTCAACATACACGGGTGTATTTTGAGACTTATATTTTCAACGACAGAAATGATAAAATGTATGACCGTTTC									
1010	1020	1030	1040	1050	1060	1070	1080	1090	1100
CACTTGCAATTTTCAATAGTAGCAACAAATAGCAATTTAGTGAATTTTCTTTCTCAGATCAATTTTCAATCTCAGATCAAAATACTAATAAACAATAGAA									
GTGAAGCTAAAAAGTAATCTGTTTTCGTATAACTATAACAGAGTATTTTGAAGTAAAGTTAGAGTCTAGTTTATGATTATTTGTAATCTT									
1110	1120	1130	1140	1150	1160	1170	1180	1190	1200
ATCTTACTTTTAAAAAATCTATAACTCACTGTCTCTCATATAATTTTGTCTTCACTCGGTTTAAAGAAATCCAGATATTTTACTCGAAAAGTTCCAGATGG									
TAGAATGAAATTTTGAATATTGATTGAGTAACAGAGTAAGTATTAACACAAAAGTGACCAAAATTTCTTAGGCTATAAAATGACGTTTTCAGCTTACC									
1210	1220	1230	1240	1250	1260	1270	1280	1290	1300
AAAAGTAATGACAGCTTCACTTTGTCTCATTTTATATGATTTATTAACAGTGAAGTTTTCAGTGGAATCTAGAATCAAAATACAGGAGGAGAGATATG									
TTTTCAATATCTGCGAAGTGGAAACAGAGTAAATATACATAAATAGTTCACATTCAAAAGTTCACCTTAGACTCTTAGTTTATGTTCCTCTATATC									
1310	1320	1330	1340	1350	1360	1370	1380	1390	1400
AAGACCTATTCCAGATTTTCATCTGGGGATCAAGCTATGGAAGATGATGTACAAATGTATTCATGTGAGAGAAAATGGTTGGTGTCTCTTCTCGTGACCA									
TTCTGGATAAGTCTCAAAAGTAGACCCCTACTTTCGATAGCTCTTACTACATGTTTACAATTAACZACCTTTTACCAACACACAGCAAGACCACTGGT									
1410	1420	1430	1440	1450	1460	1470	1480	1490	1500

FIG. 2A

# mouse CAP-1

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10      20      30      40      50      60      70      80      90      100
ATTCCGCCATCGGATCGAGGACCATGCCGTTCCAGGTTCAAGGATAAAACCCATTGGGCCATAGTGCCTCATATTCCACCTTCAGTGCCTTCCCTCCA
TAAGCCCGTGTACCTAGCTCCCTGGTACGCCAAGGTCCAAGTTCCTATTTTGGGTAAACCGGTATCACGGCAGTATAAGGTGGAAGTCACGGAAAGGAGGT

110     120     130     140     150     160     170     180     190     200
CAATTGGGATTACCCCTGCTGAAAAGCGCACGCTGACAGCAAGGGAACAAAAACTATGCTATCACATAGTCCATGGTGAAGCAAGGAACAGCAAG
GTTAACCTTAAGTGGGACGACTTTTCGGCTGGGACTGTCGTTCCCTTGTTTTTGATACGATAGTGTATCACGGTACCACTTCGTTTCCTTTGTCGTTTC

210     220     230     240     250     260     270     280     290     300
CATCAGCCATCACGAAGGAAATCCATGGACATGATGTTGACGGCATGGACCTGGGCAAAAAGTTAGCATCCCCAGAGACATCATGATAGAAGAAATTGTC
GTAGTCGGTAGTGCTTCCTTTAGGTACCTGTACTACAACTGCCGTACCTGGACCCGTTTTTCAATCGTAGGGGTCTGTGTAGTACTATCTTCTTAACAG

310     320     330     340     350     360     370     380     390     400
CCATTTCAGTAATCGTGGGCCAGGCTGTTAAGATGGCTCAAGAAGATCTGACAAATACACCTTTGAAAAATTCAGTATGAATCTAGAGCACAAATT
GGTAAAGTCAATTAGCACCCCGGTCCGACAAATTTACGCAGTTTCTTCTAGACTGTTTATGTGGAACCTTTAAAGGTCACTATTAGATCTCGTGTAA

410     420     430     440     450     460     470     480     490     500
AATCACAAATATGCCATGCGAATGGGAGAGTTGATGGAAGCAACCTGGAAAGGTGGCTCACAGCAAGGCCCTCAACTCCGCCCAACACCCCGATCCAC
TTAGTGTTATAGCGGTACGCTTACCTCTCAACTACCTTCGTTGGACCTTCCACCGAGTGTGCTTCCGGGGAGTTGAGGCGGGTTGTGGGGGTAGGTG

510     520     530     540     550     560     570     580     590     600
GAAGCCCCCAATCCAGAGAACAACGACCAAGGATATTCTGGACCACTGAAGGAAATTCCTCTGAAAGGTTTAAACAGACGGCCGTTCTTAAGTACTA
CTTCGGGGGTTTAGGTCCTTGTAGCCTGGTCTATAAGACCTGGTGACTTCCCTTTAAGGAGGACTTCCAAATGTGCTGCCGGCAAGGATTCATGAT

610     620     630     640     650     660     670     680     690     700
CCGGTCTCCATGGGAGCAGGCGAATTGGCAGCGATCCGGAGCTCCTGGAGGCTTTGTACCCAAAACCTTTCAAGCCTGAAGGAAAAGCAGAACTGCGGGAT
GGCCAGAGGTACCTCTGTCGCTAACCGTCGCTAGGCCCTCGAGGACCTCCGAAACATGGGTTTGAAGGTTTCGGACTTCCTTTTGTCTTGACGCCCTA

710     720     730     740     750     760     770     780     790     800
TACAGGAGCTTTAACAGGGTTGCCACTCCATTGAGGTTTGAAGGATCAAAATGGTCAAAATTCAAAGTTCCAGATTTTGAACACTGCTGCTGA
ATGTCCTCGAAATGTCCCAACGGTGAGGTAAACCTCCAAAACCTTTTCGTAGTTTTTACCAGTTTAAGTTTCAAGGTCTAAACTTGATGACGACGACT

810     820     830     840     850     860     870     880     890     900
CAGATCCCAGGTTCTTGGCTTTGCCAATCCTCTTTTGGGCAGACGATGCTTTAACAGGGGCCAAAGGGGTGGGTATCTGAGAATATCCCGTGTGAT
GTCTAGGGTCCAAAGAACCGGAACGGTTAGGAGAAAGCCGCTGCTACGAAATGTGTCGGGTTTCCCGCGGTTTCCCAACCATAGACTCTTATAGGGGCAGCACTA

910     920     930     940     950     960     970     980
CACAACTGAGCCTACAGAAGACGCCACTGTACCGGAATCAGATGACCTGTGAGAGGGAAAGCTGGGGATGCCACAGGAAGTTC
GTGTTGACTCGGATGCTCTTGGCGTGACATGGCCTTAGTCTACTGGACACTTCCCTTCGACCCCTACGGTGTCTTCAAG

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FIG. 2B

## human CAP-2

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CGGTACAGC AGCTCAGTC TCCAAAGCTG CTGGACCCCA GGGAGAGCTG ACCACTGCCC GAGCAGCCGG CTGAATCCAC CTCCACAATG CCGCTCTCAG      100
GAACCCCGGC CCTAATAAG AAGAGGAAT CCAGCAAGCT GATCATGGAA CTCACTGGAG GTGGACAGGA GAGCTCAGGC TTGAACCTGG GCAAAAAGAT      200
CAGTGTCCTCA AGGGATGTGA TGTGGAGGA ACTGTGCTG CTTACCAACC GGGGCTCCAA GATGTTCAAA CTGCGGCAGA TGAGGGTGGA GAAGTTTATT      300
TATGAGAACC ACCCTGATGT TTTCTCTGAC AGCTCAATGG ATCACTTCCA GAAGTTCTT CCAACAGTGG GGGGACAGCT GGGCAGAGCT GGTGAGGGAT      400
TCTCATAACG CAAGAGCAAC GGCAGAGGCG GCAGCCAGGC AGGGGGCAGT GGCTCTGCCG GACAGTATGG CTCTGATCAG CAGCACCATC TGGGCTCTGG      500
GTCTGGAGCT GGGGTACAG GTGGTCCCG GGGCCAGGCT GGCAGAGGAG GAGCTGCTGG CACACAGGGG GTTGGTGAGA CAGGATCAGG AGACCAGGCA      600
GGCGGAGAAG GAAACATAT CACTGTGTC AAGACCTATA TTCCCATG GAGCGAGCC ATGGGGGTG ACCCCAGCA AAAAATGGAA CTGGCATTG      700
AOCCTCTGCC CTATGGGGC AAAGCTGAAC TTCCAAATA TAAGTCTTC AACAGGACGG CAATGCCCTA TGGTGGATAT GAGAAGGCCT CCAAGCCAT      800
GACCTTCAG ATGCCCAAG TTGACCTGGG GGCCTGCTG AGTGAACCCC TGGTCTCTA CAACCAAAAC CTCCTCAACA GGCCTTCTTT CAATCGAACC      900
CCTATTCCTT GGCTGAGCTC TGGGGAGCCT GTAGACTACA ACGTGGATAT TGGCATCCCC TTGGATGGAG AACAGAGGA GCTGTGAGGT GTTTCCTCTT      1000
CTGATTGCA TCATTTCCTC TCTCTGGCTC CAATTGGAG A

```

FIG. 2C

## mouse CAP-2

```

100
GCCGGGGAGA GCCGACCACC AACTGAGCAG CTGCTCAGAT CCACCTCCAC CATGCCACGC TCAGGAACCC CGGCCCTAA CAAGAGGAGG AAGTCAAGCA
200
AACTGATTAT GGAGCTCACT GGAGGTGGCC GGGAGAGCTC AGCCTGAAC CTGGGCAAGA AGATCAGTGT CCCAAGGGAT GTGATGTTGG AGGAGCTGTC
300
CCTTCTTACC AACCGAGGCT CCAAGATGTT CAAGCTACGG CAGATGCGGG TGGAGAAATT TATCTATGAG AATCACCCCG ATGTTTTCTC TGACAGCTCA
400
ATGGATCACT TCCAGAAGTT TCTTCCACA GTGGGAGGAC AGCTGGAGAC AGCTGGTCAG GGCTTCTCAT ATGGCAAGGG CAGCAGTGGG GGCCAGGCTG
500
GCAGCAGTGG CTCTGCTGGA CAGTATGGCT CTGACCGTCA TCAGCAGGGC TCTGGGTTTG GAGCTGGGGG TTCAGSTGGT CCTGGGGGCC AGGCTGGTGG
600
AGGAGGAGCT CTTGGCACAG TAGGGCTTGG AGAGCCCGGA TCAGGTGACC AGGCAGGTGG AGATGGAAAA CATGTCACTG TGTTCAGAC TTATATTTC
700
CCATGGGATC GGGCCATGGG GGTGATCCT CAGCAAAAAG TGGAACTTGG CATTGACCTA CTGGCATACG GTGCCAAAGC TGAATCCCC AAATATAAGT
800
CCTTCAACAG GACAGCAATG CCCTACGGTG GATATGAGAA GGCCTCCAAA CGCATGACCT TCCAGATGCC CAAGTTTGAC CTGGGGCCTC TGCTGAGTGA
900
ACCCCTGGTC CTCTACAACC AGAACCTCTC CAACAGGCTT TCTTTCAATC GAACCCCTAT TCCCTGGTTG AGCTCTGGGG AGCATGTAGA CTACAACGTG
1000
GATGTTGGTA TCCCTTGGA TGGAGAGACA GAGGAGCTGT GAAGTGCCCTC CTCTGTCTAT GTGCATCATT TCCCTTCTCT GGTTCGAATT TGAGAGTGGA
1100
TGCTGGACAG GATGCCCCAA CTGTTAATCC AGTATTCTTG TGGCAATGGA GGGTAAAGGG TGGGGTCCGT TGCCTTTCCA CCCTTCAAGT TCCTGCTCCG
AAGCATCCCT CCTCACCAGC TCAGAGCTCC CATCTGCTG TACCATATGG AATCTGCTCT TTTATGGAAT TTTCT

```

FIG. 2D



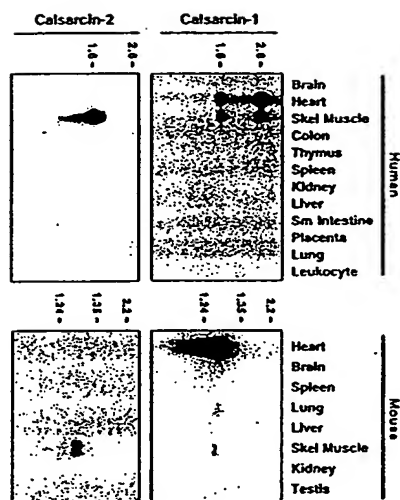


FIG. 3

FIG. 4C

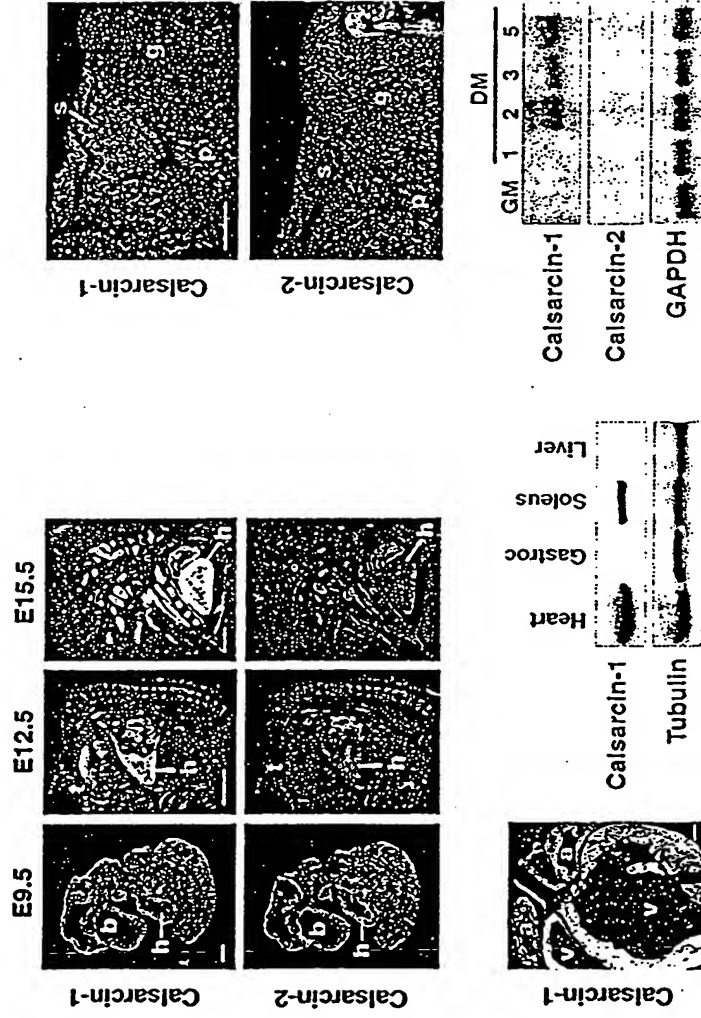


FIG. 4A

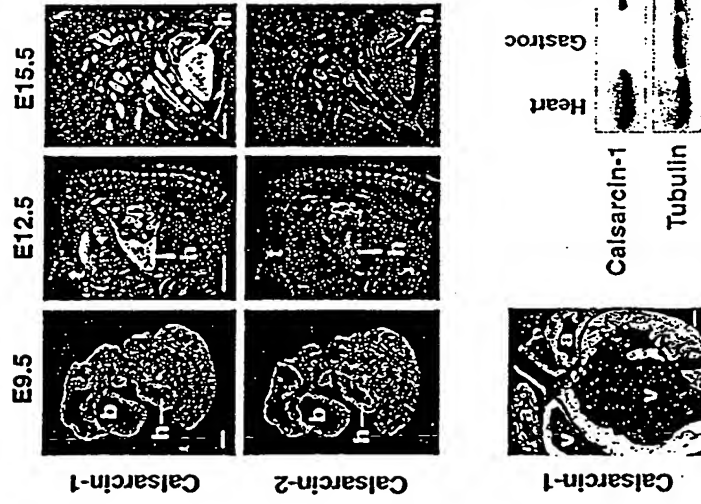


FIG. 4B

FIG. 4D

FIG. 4E



**FIG. 5A**



**FIG. 5B**

FIG. 6A

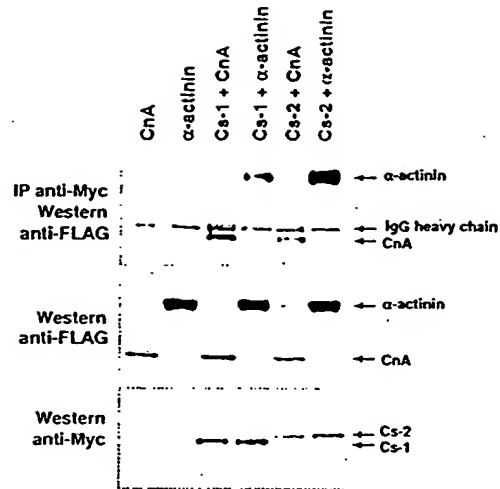


FIG. 6B

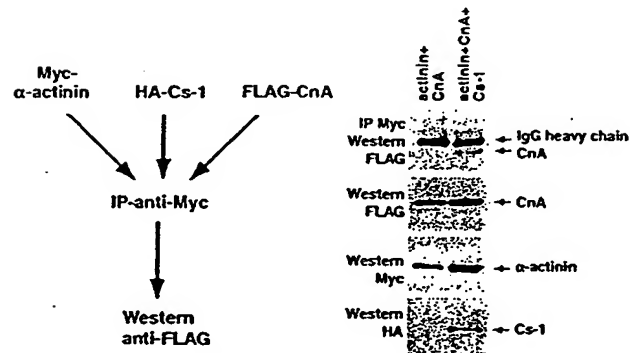
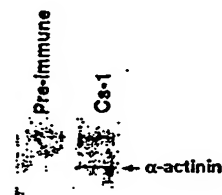


FIG. 6C





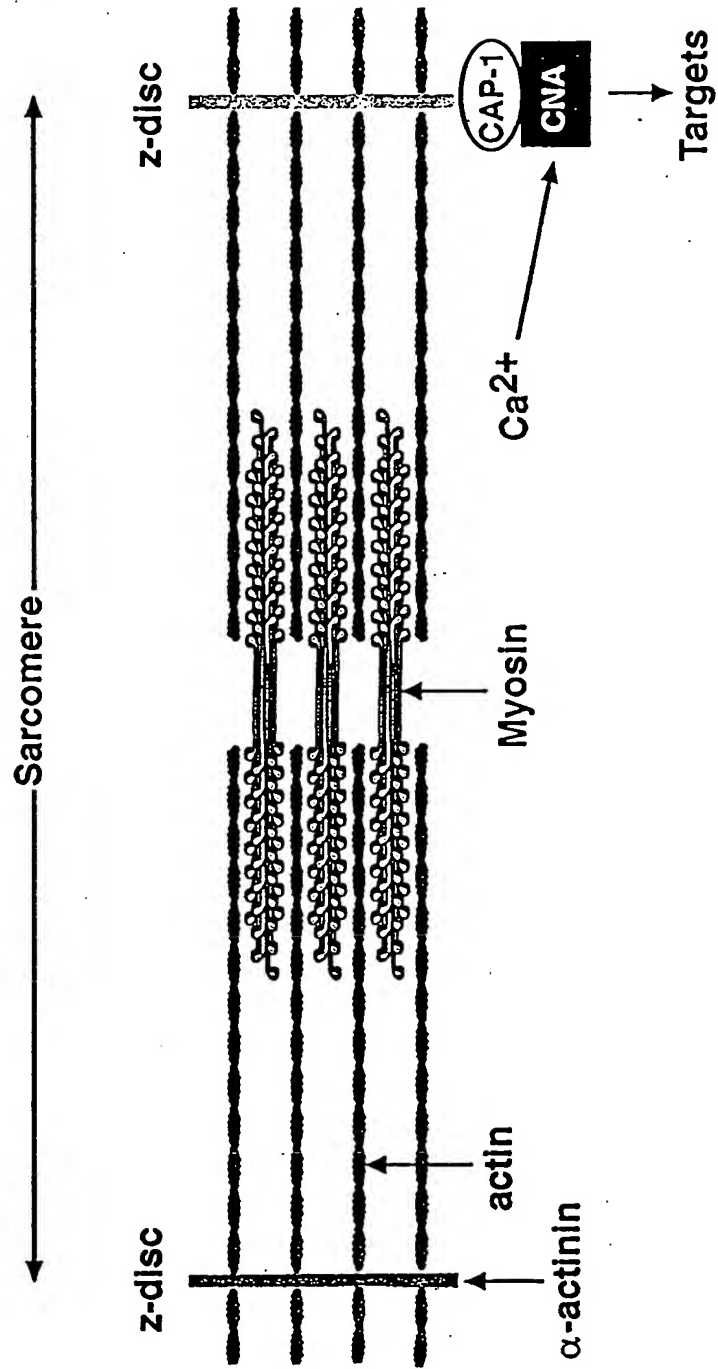


FIG. 8

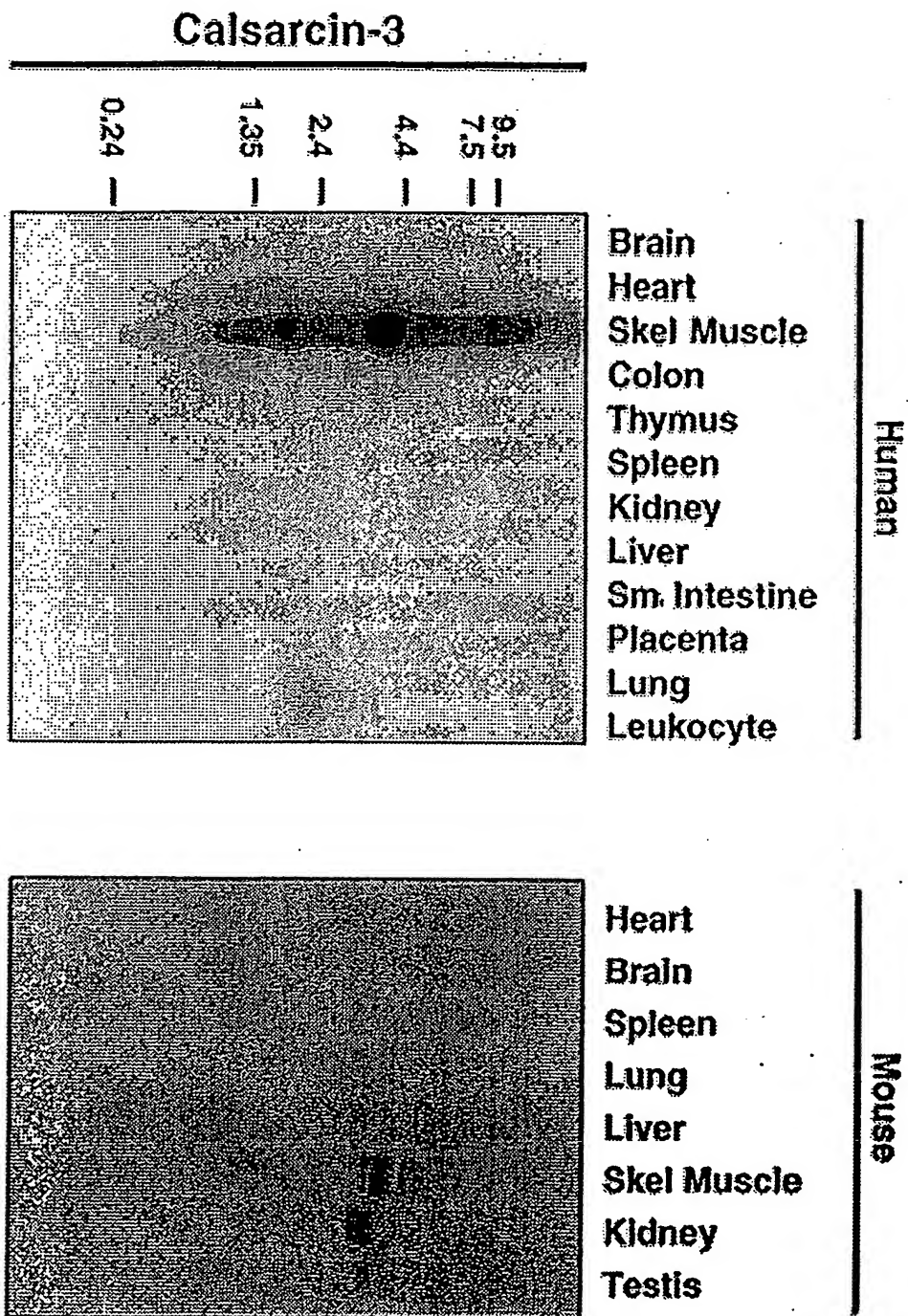


FIG. 9

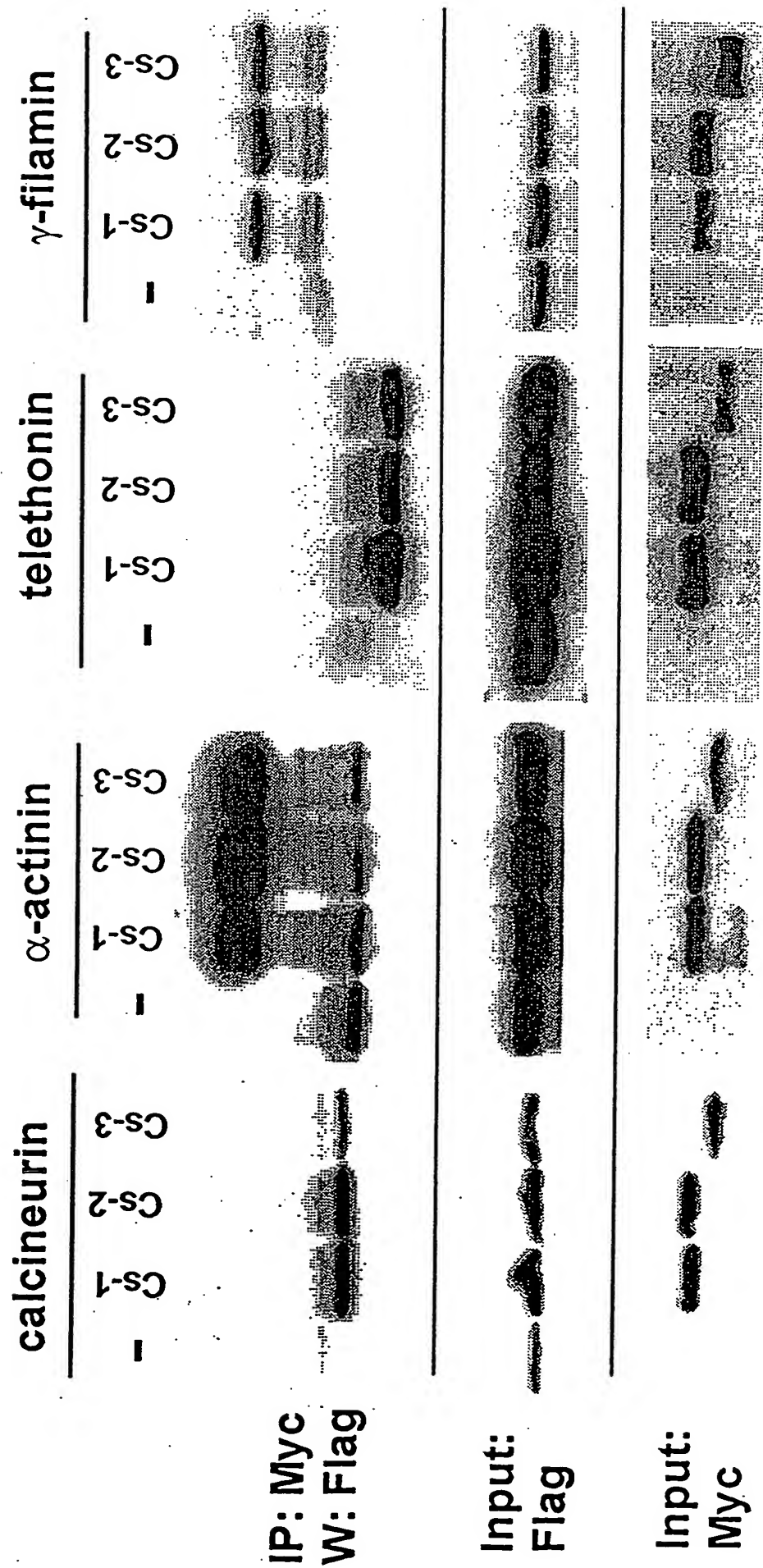


FIG. 10



calsarcin-3

actinin

merge

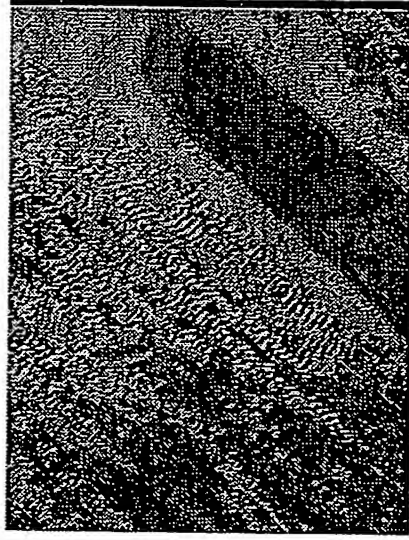
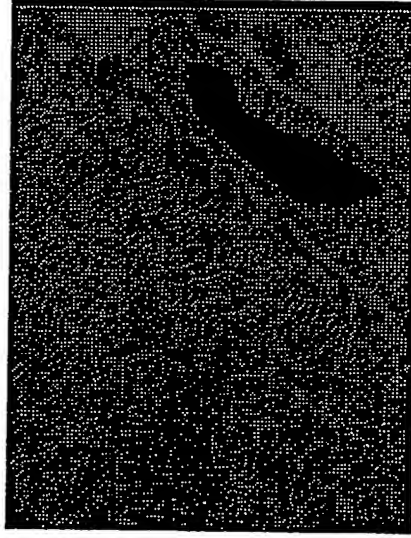
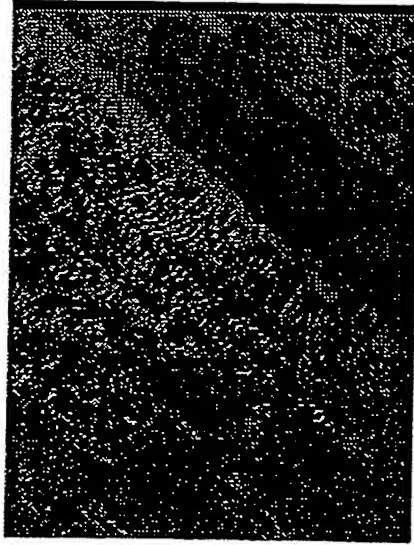


FIG. 11

FIG. 12



[illegible]

**FIG. 13**